

**PATENT**

Atty Docket No.: 200310982-1  
App. Ser. No.: 10/660,297

**REMARKS**

Favorable reconsideration of this application is respectfully requested in view of the following remarks. Claims 1-24 are pending in the present application of which claims 1, 13, 23 and 24 are independent. No new matter has been added.

Claims 1-10, 13-19 and 21-24 stand rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Fujiwara et al. (U.S.P. No. 5,777,977).

Claims 11, 12, and 20 stand objected to as to as being dependent upon an allegedly rejected base claim, but would be allowable if rewritten in independent form including all of the features of the base claim and any intervening claims.

The above claim objection and rejection are respectfully traversed for at least the following reasons.

**Drawings**

The indication that the drawings filed on September 10, 2003 have been accepted is noted with appreciation.

**Allowable Subject Matter**

It is noted with appreciation that claims 11, 12, and 20 have been indicated as being allowable if rewritten in independent form including all of the features of the base claim and any intervening claims. It is further noted that claim 21 depends on claim 20. Therefore, claim 21 also should be considered as being allowable if rewritten in independent form including all of the features of the base claim and any intervening claims.

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At this time, it is believed that all of the pending claims are allowable over the cited documents of record. As such, Applicants have elected to present the arguments below. Applicants, however, reserve the right to amend the claims at a later time should they deem such an amendment to be appropriate.

**Claim Rejection under 35 U.S.C. 102(b)**

The test for determining if a reference anticipates a claim, for purposes of a rejection under 35 U.S.C. § 102, is whether the reference discloses all the elements of the claimed combination, or the mechanical equivalents thereof functioning in substantially the same way to produce substantially the same results. As noted by the Court of Appeals for the Federal Circuit in *Lindemann Maschinenfabrick GmbH v. American Hoist and Derrick Co.*, 221 USPQ 481, 485 (Fed. Cir. 1984), in evaluating the sufficiency of an anticipation rejection under 35 U.S.C. § 102, the Court stated:

Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim.

Therefore, if the cited reference does not disclose each and every element of the claimed invention, then the cited reference fails to anticipate the claimed invention and, thus, the claimed invention is distinguishable over the cited reference.

The Office Action rejects claims 1-10, 13-19, and 21-24 as allegedly being anticipated by Fujiwara et al. The rejection of these claims is respectfully traversed for at least the following reasons.

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App. Ser. No.: 10/660,297Claims 1, 13, 23, and 24

The Office Action cites different elements in two distinct and separate apparatuses shown in Fujiwara et al. to reject claims 1, 13, 23, and 24. Specifically, the Office Action rejects claim 1 by citing an alleged probe tip and data storage layer from an apparatus disclosed in cols. 5+ of Fujiwara et al. Yet, the Office Action also rejects claims 1, 13, 23, and 24 by citing an alleged conducting layer and a sensor for sensing a change in the capacitance from a prior art apparatus described in cols. 1-3 of the Fujiwara et al. It should be noted that Fujiwara et al. explicitly state that there are problems with the use of a capacitor sensor in the prior art apparatus because such a sensor is "extremely sensitive to a surface topography of the recording medium" and as a result, "the signal-to-noise ratio of the capacitor sensor is liable to be lowered." Thus, there is no such capacitor sensor in the disclosed apparatus of Fujiwara et al. In contrast, claims 1, 13, 23, and 24 provide for sensing a change in the capacitance that is based on a *displacement* of the probe tip.

Accordingly, it is not clear as to how elements of the prior art apparatus and the disclosed apparatus described in Fujiwara et al. can be combined to anticipate claims 1, 13, 23, and 24, especially when Fujiwara et al. explicitly cite problems with the use of at least one of the elements in the prior art apparatus that the disclosed apparatus of Fujiwara et al. seeks to overcome. In fact, it is respectfully submitted that the combination of elements from the prior art apparatus and the disclosed apparatus in Fujiwara et al. would result in not only a nonfunctional apparatus, but also one that does not sense a change in the capacitance based on a *displacement* of a probe tip.

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Because Fujiwara et al. fail to anticipate each and every element of claims 1, 13, 23, and 24, arranged as in the claims, it is respectfully submitted that claims 1, 13, 23, 24, and their dependent claims 2-12 and 14-22 are allowable over the references of record.

Furthermore, it is respectfully submitted that neither the prior art apparatus nor the disclosed apparatus described in Fujiwara et al. anticipate each and every element arranged as in claims 1, 13, and 23. Specifically, Fujiwara et al. show, in the prior art apparatus, a capacitance that is developed in the SiO<sub>2</sub>/SiN interface that is formed in between an electrode 4, which is in contact with the cantilever, and a semiconductor Si substrate 1, as shown in FIG. 1. In contrast, claims 1, 13, and 23 recite a capacitance formed between "the suspension mechanism and the at least one conducting layer." Additionally, Fujiwara et al. show, in the disclosed apparatus, an electrostatic capacitance that is formed between the conductive tip 21 and the recording medium 10 shown in FIGs. 4-7. In contrast, claims 1, 13, and 23 recite a capacitance formed between the suspension mechanism, on which a probe tip is mounted, and a conducting layer.

Accordingly, it is respectfully submitted that Fujiwara et al. fail to anticipate claims 1, 13, and 23, arranged as in the claims, and these claims and their dependent claims 2-12 and 14-22 are further allowable over the references of record.

**Claims 3 and 22**

The Office Action rejects claims 3 and 22 by citing to col. 42, ll. 43-44 of Fujiwara et al., which shows that information can be recorded on and erased from the recording layer by merely introducing "electric charges and discharging electric charges from local carrier traps near the SiO<sub>2</sub>/SiN hetero interface" without any physical alteration to the recording layer.

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Indeed, the entire disclosure of Fujiwara et al. provides no physical alteration of the recording layer to form pits or protrusions as information bits. In contrast, claims 3 and 22 recite, "the bit comprises at least one of a pit or a protrusion."

Accordingly, it is respectfully submitted that Fujiwara et al. fail to anticipate claims 3 and 22, and these claims are further allowable over the references of record.

**Claims 6 and 16**

The Office Action rejects claims 6 and 16 by citing to col. 19, ll. 46-47 of Fujiwara et al., which merely discloses a lower electrode that can be made of Pt. In contrast, claims 6 and 16 recite a conducting thin film "comprises at least one of a deposited metal film of Mo, Cu, TA."

Accordingly, it is respectfully submitted that Fujiwara et al. fail to anticipate claims 6 and 16, and these claims are further allowable over the references of record.

**Conclusion**

In light of the foregoing, withdrawal of the rejections of record and allowance of this application are earnestly solicited. Should the Examiner believe that a telephone conference with the undersigned would assist in resolving any issues pertaining to the allowability of the above-identified application, please contact the undersigned at the telephone number listed

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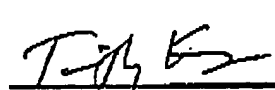
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below. Please grant any required extensions of time and charge any fees due in connection with this request to deposit account no. 08-2025.

Respectfully submitted,

Dated: August 15, 2005

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